

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Canceled)

2. (Currently Amended) A ~~recording medium~~ magnetic recording disk comprising:

a substrate;

a magnetic film formed over the substrate; and

a protective film formed over the ~~substrate~~ magnetic film,

wherein the protective film comprises diamond-like carbon,

wherein the protective film comprises hydrogen at a concentration of 10 to 60 atomic%,

wherein the protective film comprises a first element selected from the group consisting of silicon, germanium, tin and lead at a concentration of 20 atomic% or less,

wherein the protective film comprises a second element selected from Group III and Group V elements.

3. (Currently Amended) A ~~recording medium~~ magnetic recording disk according to claim 2, wherein Vicker's hardness of the protective film is 2000kg/mm² or more.

4. (Currently Amended) A ~~recording medium~~ magnetic recording disk according to claim 2, wherein the protective film has carbon bonds attributed to sp³ hybrid orbital.

5. (Currently Amended) A ~~recording medium~~ magnetic recording disk according to claim 2, wherein a thickness of the protective film is 500Å or less.

6. (Currently Amended) A ~~recording medium~~ magnetic recording disk according to claim 2, wherein a thickness of the protective film is 200Å or less.

7. (Currently Amended) A ~~recording medium~~ magnetic recording disk comprising:

a substrate;

a magnetic film formed over the substrate; and

a protective film formed over the ~~substrate~~ magnetic film,

wherein the protective film comprises diamond-like carbon,

wherein the protective film comprises hydrogen at a concentration of 10 to 60 atomic%,

wherein the protective film comprises a first element selected from the group consisting of silicon, germanium, tin and lead at a concentration of 20 atomic% or less,

wherein the protective film comprises a second element selected from Group III and Group V elements,

wherein a concentration of the first element at a first portion of the protective film is higher than a concentration of the first element at a second portion of the protective film.

8. (Currently Amended) A ~~recording medium~~ magnetic recording disk according to claim 7, wherein Vicker's hardness of the protective film is 2000kg/mm² or more.

9. (Currently Amended) A ~~recording medium~~ magnetic recording disk according to claim 7, wherein the protective film has carbon bonds attributed to sp³ hybrid orbital.

10. (Currently Amended) A ~~recording medium~~ magnetic recording disk according to claim 7, wherein a thickness of the protective film is 500Å or less.

11. (Currently Amended) A ~~recording medium~~ magnetic recording disk according to claim 7, wherein a thickness of the protective film is 200Å or less.

12. (Currently Amended) A ~~recording medium~~ magnetic recording disk comprising:

a substrate;

a magnetic film formed over the substrate; and

a protective film formed over the ~~substrate~~ magnetic film,

wherein the protective film comprises diamond-like carbon,

wherein the protective film comprises hydrogen at a concentration of 10 to 60 atomic%,

wherein the protective film comprises a first element selected from the group consisting of silicon, germanium, tin and lead at a concentration of 20 atomic% or less,

wherein the protective film comprises a second element selected from Group III and Group V elements,

wherein a centerline average roughness of the protective film is 30nm or less.

13. (Currently Amended) A ~~recording medium~~ magnetic recording disk according to claim 12, wherein Vicker's hardness of the protective film is 2000kg/mm² or more.

14. (Currently Amended) A ~~recording medium~~ magnetic recording disk according to claim 12, wherein the protective film has carbon bonds attributed to sp³ hybrid orbital.

15. (Currently Amended) A ~~recording medium~~ magnetic recording disk according to claim 12, wherein a thickness of the protective film is 500Å or less.

16. (Currently Amended) A ~~recording medium~~ magnetic recording disk according to claim 12, wherein a thickness of the protective film is 200Å or less.

17. (Currently Amended) A ~~recording medium~~ magnetic recording disk comprising:

a substrate;

a magnetic film formed over the substrate; and

a protective film formed over the ~~substrate~~ magnetic film,

wherein the protective film comprises diamond-like carbon,

wherein the protective film comprises hydrogen at a concentration of 10 to 60 atomic%,

wherein the protective film comprises a first element selected from the group consisting of silicon, germanium, tin and lead at a concentration of 20 atomic% or less,

wherein the protective film comprises a second element selected from Group III and Group V elements,

wherein a concentration of the first element at a first portion of the protective film is higher than a concentration of the first element at a second portion of the protective film,

wherein the first portion is closer to the substrate than the second portion.

18. (Currently Amended) A ~~recording medium~~ magnetic recording disk according to claim 17, wherein Vicker's hardness of the protective film is 2000kg/mm² or more.

19. (Currently Amended) A ~~recording medium~~ magnetic recording disk according to claim 17, wherein the protective film has carbon bonds attributed to sp³ hybrid orbital.

20. (Currently Amended) A ~~recording medium~~ magnetic recording disk according to claim 17, wherein a thickness of the protective film is 500Å or less.

21. (Currently Amended) A ~~recording medium~~ magnetic recording disk according to claim 17, wherein a thickness of the protective film is 200Å or less.